紅豆品種改良

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摘　要：本紅豆雜交育種目的在選育豐產、質優，籽粒大、色澤佳，適合加工，結莢位高，適合機械收穫之優良新品種，以供農民秋裡作栽培。本年度（1）88 年秋作進行七個組合雜交共獲得 532 粒 F_1 種子，並於 89 年春作培育其 F_1 世代。(2) 雜交後裔 F_2～F_4 世代採用混合法進行培育，88 年秋作計培育 F_2 及 F_4 世代各 7 個組合，89 年春作計培育 F_3 世代 7 個組合。88 年秋作於 F_4 世代混合集團中選出 1,454 個優良單株，供 89 年秋作進行株行試驗之材料。(3) 株行試驗，88 年秋作於 F_5 世代 1,553 個品系中選出 100 個優良品系，供 89 年秋作進行第一年品系試驗之材料。(4) 第一年品系試驗計有 100 個品系參試，88 年秋作在籽粒產量方面，以 C 組之 KA84-04-95 品系之 3,385kg/ha 表現最佳，較高雄 7 號分別增產 31.9%。在百粒重方面，以 B 組之 KA84-03-14 品系之 27.6 公克表現最佳，較高雄 7 號增加 10.0 公克。綜合評估選出 KA84-01-163 等 32 個品系供 89 年秋作進行第二年品系試驗之材料。(5) 第二年品系試驗，88 年秋作在參試 20 個品系(種)中，在籽粒產量方面，有 6 個品系超過對照種高雄 7 號，其中以 KA83-01-4 品系之 2,857kg/ha 及 KA83-04-133 品系之 2,750kg/ha 表現最佳，較高雄 7 號之 2,296kg/ha 分別增產 24.4%及 19.8%。在百粒重方面，有 4 個品系屬特大粒種（≧20 公克），其中以 KA83-02-21 品系之 23.0 公克及 KA83-01-4 品系之 22.9 公克表現最佳，較高雄 7 號之 16.7 公克分別增加 6.3 及 6.2 公克。綜合評估選出 KA83-01-4 等 6 個品系，供 90 年秋作進行第一年品系區域試驗之材料。

Varietal Improvement of Adzuki Bean

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Abstract: The purpose of adzuki bean cross breeding is to develop new cultivars with high yield, good quality, large seed, bright red seed for process and high pod site for mechanical harvest that were suitable for the cultivation in the south of Taiwan. The experimental results were summarized as follow : (1) A total of 532 F_1 hybrid seeds were obtained from 7 cross combinations in the fall crop season of 1999, and were propagated F_1 generation in the spring crop season of 2000. (2) In the propagation and selection trials, bulk method was applied to propagating F_2-F_4 segregative generations in the fall crop season of 1999 and the spring crop of 2000, respectively. A total of 1,454 superior single plants in F_4 generation were selected in the fall crop season of 1999. (3) In the plant-to-row trial, there were 100 fixed lines in F_5 generation were selected depend on their performance in the fall crop season of 1999. (4) In the first-year lines trial, KA84-04-95 line of C group had the highest seed yield among 102 tested lines in the fall crop season of 1999, which was 31.5% higher than check variety, Kaohsiung 7. KA84-03-14 line of B group had the higher 100-seed weight among 102 tested lines in the fall crop season of 1999, which was 10g higher than check variety, Kaohsiung 7. (5) In the second-year lines trial, seed yields of 6 lines were higher than check variety, Kaohsiung 7 in the fall crop season of 1999. KA83-01-4 and KA83-04-133 lines had the higher seed yield among 20 tested lines, which were 24.4% and 19.8% higher than check variety, Kaohsiung 7. KA83-02-21 and KA83-01-4 lines had the higher 100-seed weight among 20 tested lines, which were 6.3g and 6.2g higher than check variety, Kaohsiung 7.